

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. § 1.111, and in light of the remarks which follow, are respectfully requested.

Claim 1 has been amended to recite (C) at least one of polyglycerin fatty acid esters in which the polyglycerin has a polymerization degree of 3 to 10 of glycerin. This amendment is supported by the specification, at least page 21, lines 18-22.

Upon entry of the Amendment, claim 1 will be the sole claim pending in the application.

I. Information Disclosure Statement

Applicants note that a fourth Information Disclosure Statement along with a Form PTO-1449 were previously filed on January 17, 2008, subsequent to the issuance of the present Office Action. The Examiner is respectfully requested to consider the information, initial and date the Form PTO-1449 and return a signed copy in the next PTO communication.

II. Response to Rejection under 35 U.S.C. § 103(a)

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,745,103 to Oono et al. and U.S. Patent No. 5,656,264 to Hanada et al. in combination.

Applicants respectfully submit that claim 1 as amended is patentable over the cited references for at least the following reasons.

Claim 1 relates to a hair growth promotor which is an ethanol or aqueous ethanol preparation comprising (A) at least one compound selected from fatty acids having a chain length of an odd number of carbon atoms, the derivatives of the fatty acids, aliphatic alcohols having a chain length of an odd number of carbon atoms and the derivatives of the aliphatic alcohols, (B) at least one selected from 6-benzylaminopurine and/or the derivatives thereof

represented by the Formula (I), (C) at least one of polyglycerin fatty acid esters in which the polyglycerin has a polymerization degree of 3 to 10 of glycerin, and (D) at least one of sorbitan fatty acid esters.

Oono et al. discloses a hair cosmetic composition containing (a) a solvent including ethanol, (b) a hair-growing component which is at least one compound selected from the group consisting of straight chain, higher aliphatic carboxylic acids having odd number of carbon atoms, and (c) a nonionic surfactant having an HLB value of not greater than 10. Oono et al. shows in the Examples that hair cosmetics using a nonionic surfactant having an HLB value of greater than 10 are inferior in low temperature stability.

Hanada et al. discloses compositions for promoting hair growth containing 6-benzylaminopurine and/or derivatives.

As described at page 2 of the present specification, it is difficult to stabilize a preparation in which components (A) and (B) are blended at low temperature. Therefore, it is more difficult to obtain a stable preparation at low temperature, in which component (A) is coexistent with component (B).

Applicants submit herewith a Declaration under 37 C.F.R. § 1.132, by Mr. Tomoko Koyagi. The Declaration demonstrates unexpectedly superior results, and thereby further supports the patentability, of claim 1.

Specifically, in the Declaration, hair growth promotor Comparative Example 8 was prepared according to formulation shown in the following Table 2, and then evaluated in the same manner as described in Examples of the present specification. The results are summarized in Table 2 along with Comparative Examples 1-7 of the present specification.

Table 2

| | | Blend amount (%) | | | | | | | |
|--|--------------------------------|---------------------|---------|---------|---------|---------|---------|---------|---------|
| | | Comparative Example | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Component (A) | Glycerin tridecanoate | 2.0 | 2.0 | 2.0 | | | | | |
| | Glycerin pentadecanoate | | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Component (B) | 6-Benzylamino-purine | 0.5 | 0.5 | | | | | 0.5 | 0.5 |
| | 6-(4-Methylbenzyl-amino)purine | | | 0.5 | 0.5 | 0.5 | 0.5 | | |
| Component (C) | Pentaglycerin monomyristate | | 2.0 | | | | | | |
| | Decaglycerin monomyristate | | | | 2.0 | | | | |
| | Pentaglycerin monooleate | | | | | | | 2.0 | |
| | Diglycerin monostearate | | | | | | | | 1.0 |
| Component (D) | Sorbitan monolaurate | | | 3.0 | | | 1.0 | | 3.0 |
| 99 % ethanol | | Balance | Balance | Balance | Balance | Balance | Balance | Balance | Balance |
| Evaluation of hair growth effect | | 75 | 75 | 63 | 75 | 75 | 75 | 63 | 75 |
| Evaluation of use feeling | | X | Δ | O | Δ | X | O | Δ | O |
| Evaluation of stability at low temperature | | X | X | X | X | X | X | X | X |

For the Examiner's convenience, Table 1 of the present specification is duplicated as follows:

Table 1

| | | Blend amount (%) | | | | | | | |
|--|--------------------------------|------------------|---------|---------|---------|---------|---------|---------|---------|
| | | Example | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Component (A) | Glycerin tridecanoate | 2.0 | 2.0 | 2.0 | | | | 2.0 | |
| | Glycerin pentadecanoate | | | | 2.0 | 2.0 | 2.0 | | 2.0 |
| Component (B) | 6-Benzylamino-Purine | 0.5 | 0.5 | | 0.5 | | | | 0.5 |
| | 6-(4-Methylbenzyl-amino)purine | | | 0.5 | | 0.5 | 0.5 | 0.5 | |
| Component (C) | Pentaglycerin monomyristate | 0.5 | | | 1.0 | | | 0.05 | |
| | Decaglycerin monomyristate | | 0.5 | | | 2.0 | | | 0.05 |
| | Pentaglycerin monooleate | | | 1.0 | | | 2.0 | | |
| Component (D) | Sorbitan monolaurate | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 99 % ethanol | | Balance | Balance | Balance | Balance | Balance | Balance | Balance | Balance |
| Evaluation of hair growth effect | | 75 | 75 | 63 | 75 | 75 | 75 | 63 | 63 |
| Evaluation of use feeling | | O | O | O | O | O | O | Δ | Δ |
| Evaluation of stability at low temperature | | O | O | O | O | O | O | O | O |

As the data in the above Tables 1 and 2 show, hair growth promotor Examples 1-8, which satisfy all of the recitations of claim 1, exhibited excellent stability at low temperature. In contrast, hair growth promotor Comparative Examples 1-4, 6 and 7, which contained components (A) and (B), and either component (C) or component (D) but not both of components (C) and (D), formed crystals or precipitates at low temperature.

It should be noted that Comparative Examples 3 and 6 contained sorbitan monolaurate which has an HLB value of 8.6, which is not greater than 10, and that Comparative Example 7 contained pentaglycerin monooleate which has an HLB value of 6 to 7. Both of sorbitan monolaurate and pentaglycerin monooleate meet the requirements of surfactant described in Oono et al., however, they, alone, cannot stabilize the composition comprising components (A) and (B) at low temperature. On the other hand, decaglycerin monomyristate used in Examples 1-8 have an HLB of 14, and an average HLB of Components (C) and (D) in Example 5 is 10.8, which is greater than 10.

Moreover, hair growth promotor Comparative Example 8, which contained components (A) and (B), diglycerin monostearate, and sorbitan monolaurate, formed crystals or precipitates at low temperature. Diglycerin monostearate has a polymerization degree of 2 and thus does not meet the requirements of component (C) recited in claim 1.

The hair growth promotor as defined in claim 1 can provide unexpectedly superior results in terms of stability at low temperature, which is not disclosed or suggested by Oono et al. or Hanada et al.

In view of the foregoing, Applicants respectfully submit that claim 1 is not obvious over Oono et al. and Hanada et al. in combination, and thus, the rejection should be withdrawn.

III. Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (202) 452-7932 at his earliest convenience.

Respectfully submitted,

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